Ind J Dermatol Venereol Leprol 1994; 60 : 345-6

NON-DIABETIC ATYPICAL NECROBIOSIS LIPOIDICA

RR Mittal, AK Chopra, RLS Walia, SS Gill, Tapanjot

One-8-years female child had asymptomatic, anaesthetic, hypohidrotic, atrophic, yellowish, waxy plaque on the front of left thigh since 2 months. No nerve thickening was observed clinically or histopathologically. Hyperkeratosis, follicular keratosis, epidermal atrophy, degeneration of collagen, Mononuclear granulomas and perivascular mononuclear infiltrate confirmed the clinical diagnosis of a typical necrobiosis lipoidica.

Key Words : Necrobiosis of collagen, Granuloma

Introduction

Necrobiosis lipoidica (NL) occurs in 0.3% of diabetics and between 2/3rd to 3/4th of NL patients have manifest diabetes.[1] Although, NL usually follows diabetes, the two conditions can develop simultaneously, and sometimes NL develop first.[1] NL is rare in early childhood.[2] 85% of non-diabetic NL patients are females. Typical plaques of NL are asymptomatic, round, firm, dull red with brownish red to violaceous margins and waxy yellow atrophic centres present on the shins. Plaque may have sclerodermiform appearance due to prominent fibrosis.[3] Eleven of 12 NL patients showed partial or complete anaesthesia of the affected plaque.[4] An intense and uniform hypohidrosis was observed in plaques on NL.[5]

Case Report

A 8-years-female developed slowly progressive, yellowish, waxy, indurated, 4 cm x 3 cm oval plaque with ill-defined margins having irregular projections on its lateral side, in the middle of front of left thigh since 2 months. Plaque was uniformly hypohidrotic, anaesthetic, surface showed wrinkling, slight atrophy, and few black follicular keratotic plugs. There was no enlargement of peripheral cutaneous nerves or nerves ending in the lesion itself. She had Giardia infestation and anaemia which were treated. Caries teeth and seborrhoea capitis were present. She was born and has been living in Punjab since birth.

The girl was interrogated for a history suggestive of diabetes, especially regarding polyuria, thirst, increased appetite and weight loss, none of which was available. Her fasting blood sugar was 75 mg%. Glucose tolerance test was normal. Biopsy showed mild hyperkeratosis, follicular hyperkeratosis, mild atrophy of epidermis, papillomatosis and hyperpigmentation of the basal layer. Upper dermis showed foci of degeneration and regeneration of collagen, mononuclear granulomas with giant cells and perivascular mononuclear infiltrate. Dermal nerves were not thickened. No liquefaction degeneration of basal cells was seen. Transfollicular elimination of collagen could not be demonstrated clearly due to non-availability of specific stains.

Comments

The present case presented with single, yellowish, wrinkled, anaesthetic, hypohidrotic, indurated plaque with irregular protrusion on its lateral side and discrete comedo-like plugs. Atypical NL, indeterminate leprosy and lichen sclerosis et atrophicus were considered in the differential diagnosis. Comedo-like plugs,

From the Department of Skin & VD, Govt. Medical College/Rajendra Hospital, Patiala 147 001, India.

Address correspondence to : Dr R R Mittal

atrophy of epidermis, negative smears and histopathology ruled out leprosy. Hypohidrosis, complete anaesthesia and absence of liquefaction degeneration of basal cells excluded lichen sclerosis et atrophicus. Awareness of atypical NL in the form of anaesthetic, yellow plaque studded with comedo-like plugs is important and such a presentation in an 8-year non-diabetic female is reported due to its rarity.

References

1. Smith JG, Necrobiosis lipoidica : a disease of changing concepts. Arch Dermatol 1956;74:280-5.
2. Chernosky ME, Guin JD, Necrobiosis lipoidica in a three-year-old girl. Arch Dermatol 1961; 84:135-6.
3. Cunliffe WJ, Necrobiotic disorders. In: Textbook of Dermatology (Champion RH, Burton JL, Ebling FJG, eds), 5th edn. London: Blackwell Scientific Publishers, 1992, pp. 2033-8.
4. Mann RJ, Harman RRM. Cutaneous anaesthesia in necrobiosis lipoidica. Br J Dermatol 1984; 110: 323-5.
5. Hatzis J, Varelzidis A, Tosca A, et al. Sweat gland disturbances in granuloma annulare and necrobiosis lipoidica. Bri J Dermatol 1983; 108:705-9.